

Application No.: 10/565,565
Filing Date: January 23, 2006

REMARKS

Applicants have canceled Claims 3-5, 9, and 15 without prejudice to, or disclaimer of, the subject matter contained therein. Applicants maintain that the cancellation of a claim makes no admission as to its patentability and reserve the right to pursue the subject matter of the canceled claims in this or any other patent application.

Claims 1 and 16-18 are amended herein. Support for the amendment to Claim 1 is found in original Claims 3-5. Claim 17 has been amended herein to independent form by including the language of previously presented Claim 15, from which Claim 17 previously depended. Thus, the scope of Claim 17 is unchanged. Since the scope of Claim 17 is unchanged, any new rejection of Claim 17 would be a new rejection not necessitated by the amendment to Claim 17. Claims 16 and 18 are amended to modify their dependency in accordance with the cancellation of Claim 15 and amendment to Claim 17. Accordingly, no new matter is added by the amendments.

Upon entry of the amendment, Claims 1, 2, 6-8, 10, 11, 16, 17 and 18 are under examination.

Election/Restrictions

The claims have been restricted between the following three groups:

Group 1, Claims 1-11 and 15-18.

Group 2, Claims 12 and 14.

Group 3, Claim 13.

Applicants made a provisional telephonic election of Group 1, Claims 1-11 and 15-18 on March 31, 2007. Applicants hereby affirm the election of Group 1. Applicants respectfully request rejoinder of the claims of Groups 2 and 3 upon finding of allowable claims of Group 1 and upon amendment, if necessary, to contain all limitations of the allowed claims. In the event that rejoinder of the withdrawn claims is not permitted, Applicants reserve the right to pursue the restricted out subject matter in one or more subsequent divisional applications.

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Rejection under 35 U.S.C. § 101

Claim 9 is rejected under 35 U.S.C. § 101. The Office Action states that the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process. Applicants have canceled Claim 9. Accordingly, this rejection is moot.

Rejection under 35 U.S.C. § 112

Claim 9 is rejected under 35 U.S.C. § 112. The Office Action states that the claim is unclear. Applicants have canceled Claim 9. Accordingly, this rejection is moot.

Rejection under 35 U.S.C. § 102

Claims 1-4, 6, 7, 9-11, 15, 16 and 18 under 35 U.S.C. §102 as being anticipated by Seiya (JP 2002-105112).

Seiya does not anticipate Claim 1 as amended because Seiya does not teach all elements of the claim. Claim 1 has been amended to include the language of previously pending Claims 3-5, and now recites that the binder resin is (meth)acrylic resin having a carboxyl group and an acid value of 0.5 to 5 KOH mg/g. Seiya does not teach that the binder resin is (meth)acrylic resin having a carboxyl group and having an acid value of 0.5 to 5 KOH mg/g. Therefore Seiya cannot anticipate Claim 1 as amended.

Furthermore, not only does Seiya lack a teaching of an acid value of 0.5 to 5 KOH mg/g, but, in addition, Seiya's teachings would lead one of ordinary skill away from the recited acid value range. Seiya teaches that the carboxyl group content photopolymer and resin having carboxyl groups disclosed therein should have an acid value between 20 to 150 mgKOH/g. Further, Seiya teaches that lower acid values have disadvantages: "when acid value is lower than 20 mgKOH/g, solubility over an alkaline aqueous solution is insufficient, and [] it is easy to produce poor development ..." *Seiya* at paragraph [0053]. Thus, Seiya teaches away from acid values lower than 20 KOH mg/g. Since the claimed range is lower than 20 KOH mg/g, Applicants respectfully submit that none of Claim 1, or any claim dependent therefrom or otherwise reciting all elements thereof, is anticipated by or obvious over Seiya.

Claim 15 is canceled herein. Thus, the rejection of this claim is moot.

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Claims 16 and 18 are amended to depend from Claim 17, which is not rejected as anticipated by Seiya. Applicants submit that Claims 16 and 18 are novel and non-obvious over Seiya for at least the same reasons that Claim 17 is novel and non-obvious over Seiya.

Rejection under 35 U.S.C. § 103

Claims 1, 4, 5, 8, 15 and 17 are rejected under 35 U.S.C. § 103 as being obvious over Nishimura (US 5,380,179).

Applicants respectfully submit that Nishimura does not teach all of elements of the rejected claims, and that it would not have been obvious to modify teachings of Nishimura to arrive at the claimed compositions. Specifically, Nishimura does not teach or make obvious a binder resin that is (meth)acrylic resin having a carboxyl group, or a (meth)acrylic resin having an acid value of 0.5 to 5 KOH mg/g.

The Office Action states that the propylene-vinyl acetate-glycidyl (meth)acrylate copolymer of Nishimura corresponds to the Applicants' (meth)acrylate resin with a carboxyl group. However, propylene-vinyl acetate-glycidyl (meth)acrylate copolymer, and the other (meth)acrylic polymers taught in Nishimura, are (meth)acrylic polymers having ester groups, not (meth)acrylic resins having a carboxyl group. For example, the propylene-vinyl acetate-glycidyl (meth)acrylate copolymer pointed to in the Office Action contains only ester groups and does not contain a carboxyl group. As evidence that this copolymer contains only ester groups, Applicants submit herewith as Exhibits 1-3 printouts from the online catalog of SIGMA-ALDRICH® for each of the three components of the copolymer (*i.e.*, propylene, vinyl acetate, and glycidyl acrylate, respectively). As is clearly seen in Exhibit 1, propylene contains no carboxyl groups. Similarly, Exhibit 2 shows that vinyl acetate contains an ester group, but no carboxyl groups. Finally, Exhibit 3 shows that glycidyl acrylate contains an ester group, but no alkyl groups. No evidence of record would indicate that any polymerization to combine these components would result in formation of a carboxyl group. Accordingly, the evidence clearly demonstrates that the propylene-vinyl acetate-glycidyl (meth)acrylate copolymer of Nishimura does not contain a carboxyl group. Applicants submit that a similar demonstration can be made for the other polymers taught in Nishimura. That is, Nishimura does not provide a polymer in which the components thereof contain a carboxyl group. As such, there is no evidence that any

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polymer of Nishimura has a carboxyl group. Accordingly, this element of Claims 1 and 17 is not taught by the Nishimura. As such, Claims 1 and 17 are not obvious over Nishimura.

Furthermore, it would not have been obvious to modify teachings of Nishimura to arrive at the claimed compositions. In particular, it would not have been obvious to modify Nishimura's teachings to include a (meth)acrylic resin having an acid value of 0.5 to 5 KOH mg/g. The Office Action states that it would be obvious to optimize the number of free acid groups in Nishimura's polymers to obtain a desired acid value. However, as mentioned above, Nishimura does not teach a (meth)acrylic resin having a carboxyl group. Thus, there is no such free acid group available for optimization in Nishimura's polymers. Moreover, there is no indication that modification of acid value to optimize according to Nishimura's teachings would lead to the claimed values, particularly when no carboxyl groups are present in Nishimura's (meth)acrylic resins. In fact the only evidence of record for directing those of ordinary skill to optimize acid values in a polymer is the teachings of Seiya. As discussed above, Seiya teaches avoiding acid values lower than 20 KOH mg/g, such as those acid values in Applicants' claims. Thus, the evidence of record demonstrates that optimization of acid values would result in an acid value between 20 to 150 mgKOH/g in accordance with the teachings of Seiya. As such, the acid values recited in Claims 1 and 17 are non-obvious over the evidence of record.

Claim 16 is Further Non-obvious over Nishimura

Claim 16 is further non-obvious over Nishimura. Claim 16 is directed to the composition of Claim 17, where at least one of R¹, R² and R³ is H.

The Office Action points to tributyl phosphate of Nishimura as corresponding to the phosphorus compound of the claims. However, tributyl phosphate differs from the formula of Claim 16, in that none of R¹, R² and R³ in tributyl phosphate are H. Nishimura teaches only phosphate triesters. Nishimura provides no phosphate compounds in which at least one of R¹, R² and R³ in tributyl phosphate is H. Accordingly, Nishimura does not teach or make obvious the composition as recited in Claim 16.

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No Disclaimers or Disavowals

Although the present communication may include alterations to the claims, and/or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

In view of the above, Applicants respectfully maintain that claims are patentable and request that they be passed to issue. Applicants invite the Examiner to call the undersigned if any remaining issues might be resolved by telephone.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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